PEO Ground Combat Systems Overview

Presented to:
Ammunition Executive Summit

Presented By:
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Deputy Program Executive Officer

PEO-GCS
Vision and Mission

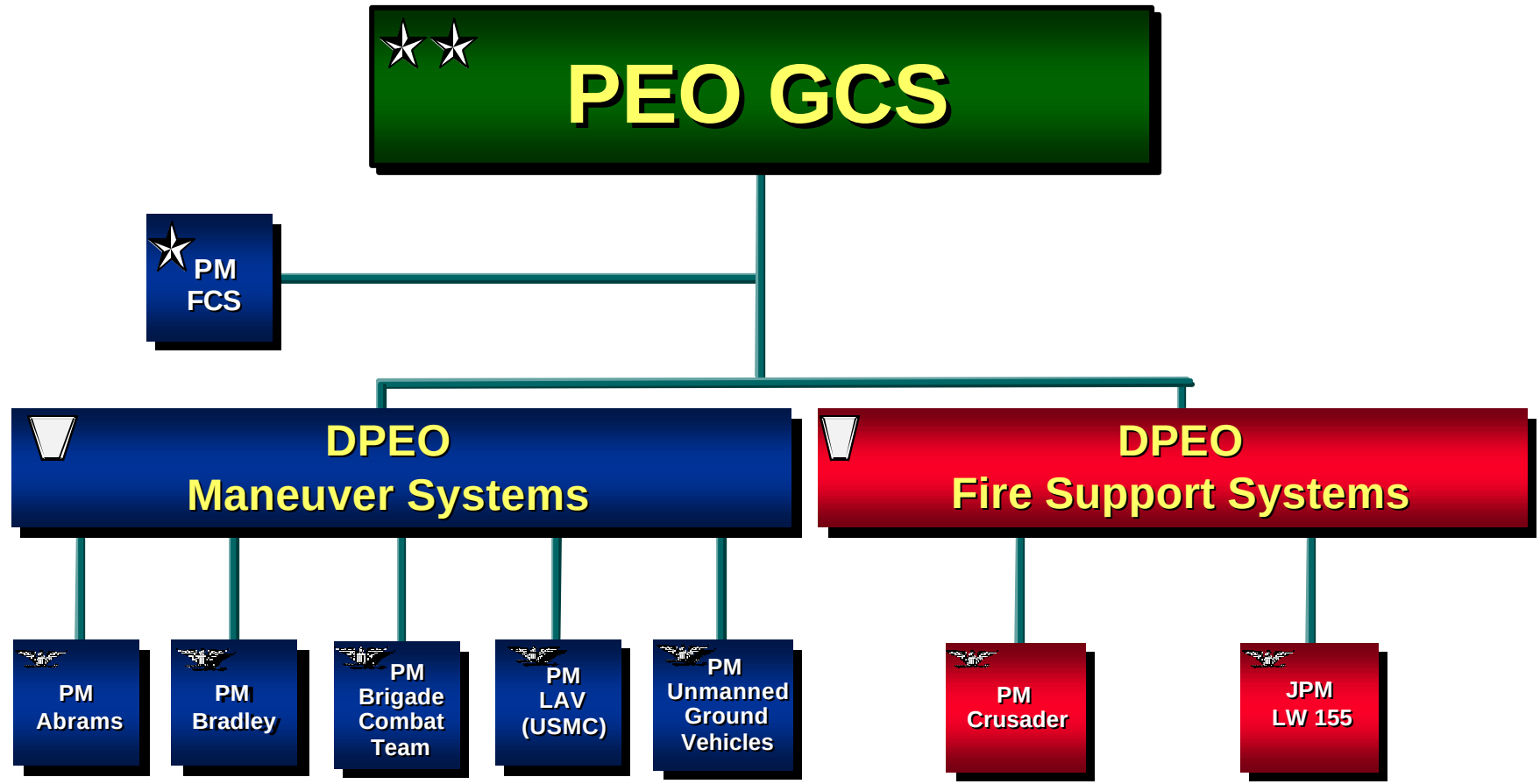
Vision

Be the Army's Acquisition Manager For Future Ground Systems As It Evolves Toward The Objective Force.

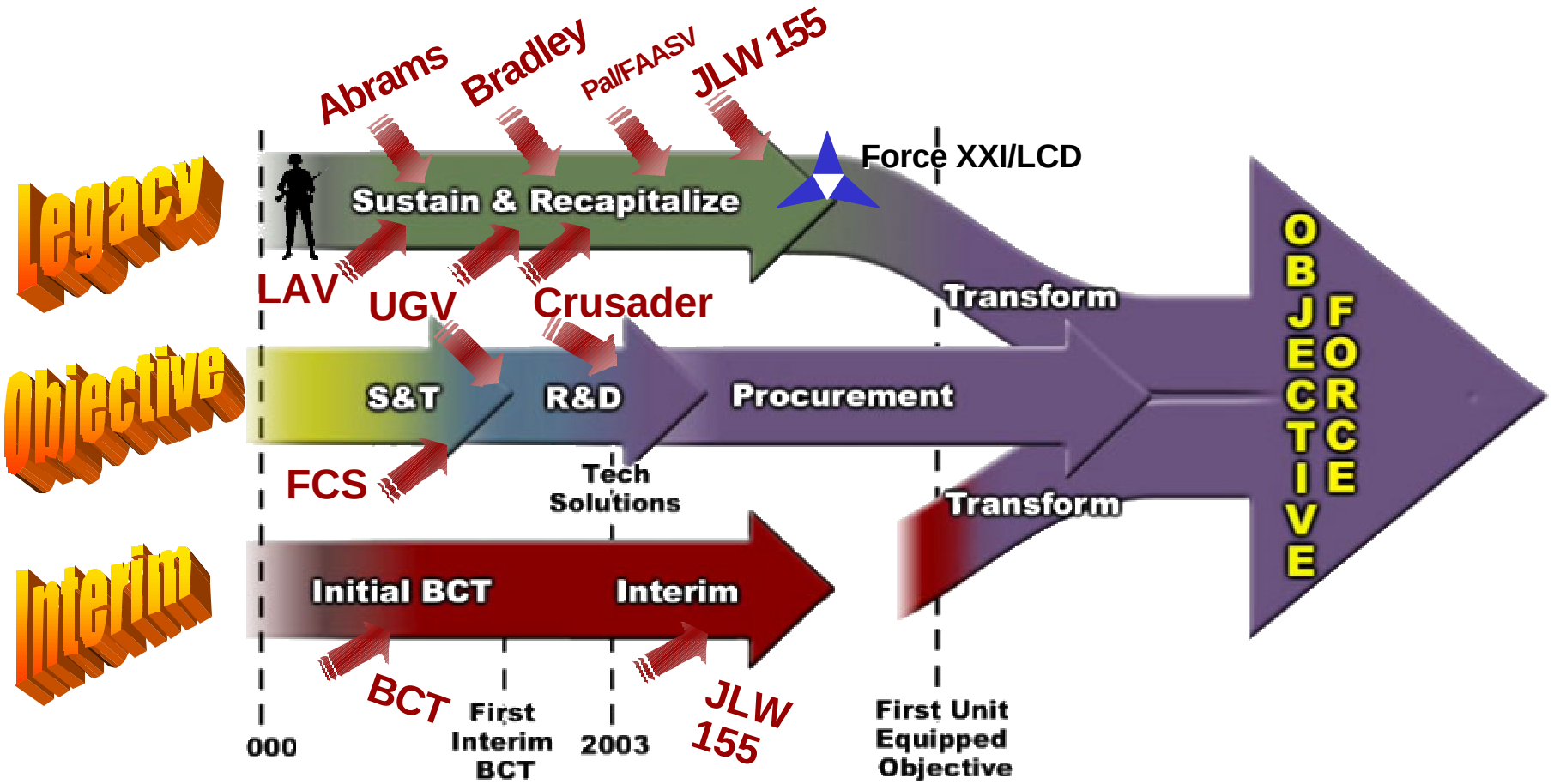
Mission

Maintain The Total Army Perspective While Managing Assigned Systems. Develop, Acquire, Test, Integrate, Improve, and Field Programs While Meeting Cost, Schedule and Performance Goals

Current Organization



The Army Transformation



Abrams Tank System Programs Within the Project

Upgrade

M1 Basic

M1A2SEP

End Total of 966 tanks

Retrofit

M1A2

M1A2SEP

M1A1 (AIM) Overhaul

M1A1

M1A1 +

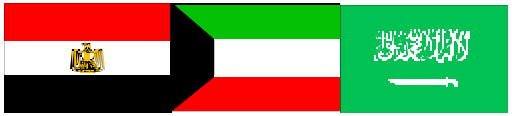
End Total of 790 Aim tanks

Recapitalization

New Engine

Electronic Obsolescence

FMS



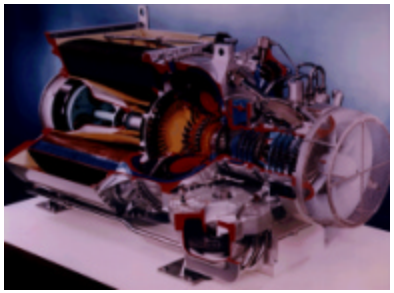
Ongoing

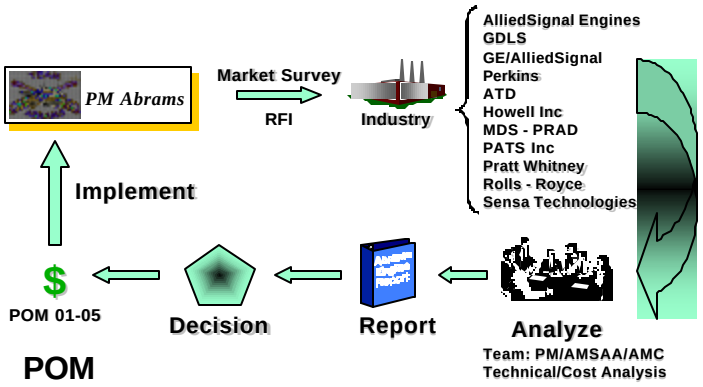
Future Competitions

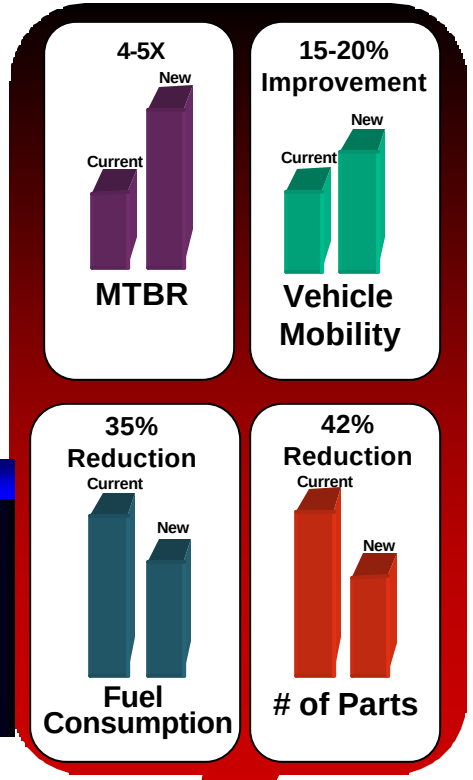
Live Fire

Panther

Abrams/Crusader Common Engine Program (ACCE)

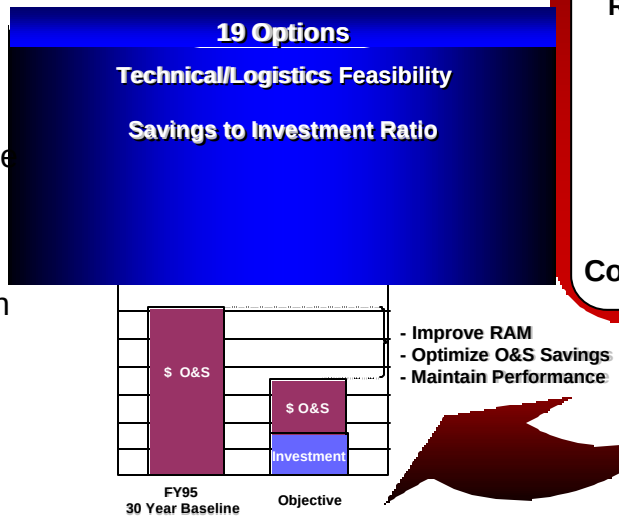






Objectives and Requirements:

- Reduce Abrams Total Ownership Costs
- Reduce Crusader Systems Weight and Size
- Optimize Engine Commonality Between Abrams and Crusader
  - **Training, Tools, TMDE etc.**
- Mature Design Solution - Low risk transition to Production



The Interim Armored Vehicle Family

Infantry Carrier Vehicle (ICV)

- LAV III Chassis
- 8x8 Wheeled w/CTIS & Run Flat
- High Hard Steel Structure
- Remote Weapon Station with cal .50 MG or MK19 40mm

Mobile Gun System (MGS)

- LAV III Chassis
- Low Profile Turret
- M68A1 Cannon w/Autoloader
- Full Solution Fire Control

Brigade Configuration

	Qty Ea Bde	ORF	TDA	TOTAL
ICV	108	6	30	714
ATGM	9	1	15	75
MORTAR	36	2	13	241
RECON	48	3	12	318
FIRE SUPPORT	13	1	15	99
ENGR SQ VEH	9	1	13	73
CDR'S VEH	39	1	12	252
MED EVAC	17	1	10	118
NBC RECON	3	1	13	37
MGS	27	4	18	204
	309	21	151	
IBCTs	x6	x6		
TOTAL IAV	1854	126	151	2131

Bradley Current Status: FY2001

Bradley A0 1982

- 25MM Cannon
- Basic TOW Subsystem
- Integrated Sight Unit
- IFV 9 Man Total
- CFV 5 Man Total

2300
- 29
Losses

Reman @ UDLP

- 510 M2/M3A2
-193 A0-A2ODS
=

1568
A0s after all conversions

703
Converted at York, PA / San Jose, CA

Bradley A1 1986

- TOW II Subsystem
- Restowage
- MLRS Final Drives
- Fire Suppression Sys
- GPFU Sys

1371
-26
Losses

Depot Conversion

-1345 M2/3A2
=
0

1345
Red River/ Mainz

Bradley A3 2000

- Core Electronic Architecture
- 2nd Gen FLIR Target Acquisition
- Command and Control Software
- CDR Independent Viewer
- Ballistic Fire Control

1042 APO
649 M2
2 LFT&E
276 M3
115 A3 BFIST

104 A3s today

1042* Planned
Remanufactured at York, PA

Bradley A2 ODS

- Combined Arms Team
- Laser Rangefinder
- GPS/POS NAV
- DVR Thermal Viewer
- Combat ID System
- Missile Counter Device
- Restowage

1689 ODS
1143 M2/M3 ODS
249 ADA ODS
104 M7 ODS
193 NG ODS

1366 AC ODS + 80 RC ODS today

York, Red River, & Field Retrofit

Bradley A 1988

- 600 HP Powertrain
- 30MM Protection
- Spall Liners
- Ammo Restowage
- Armor Tile Ready

107
13
Losses
+
510
+
193
+
1345
-
1689
-
1042
=

2411
A2s after all conversions

JLW 155 - On Track for Medium Force

XM777 Is the Joint US Marine Corps/Army 155mm Towed Lightweight Artillery System

- **Meets or Exceeds All Capabilities of Current M198 155mm Howitzer**
- **Weight Reduced From 16,000 to 9,000 Pounds**
- **Highly Deployable/Transportable (CH47D, CH53D/E, C-130, C-141B, C-17, C-5 and MV-22)**
- **Towed Artillery Digitization System**

Block I

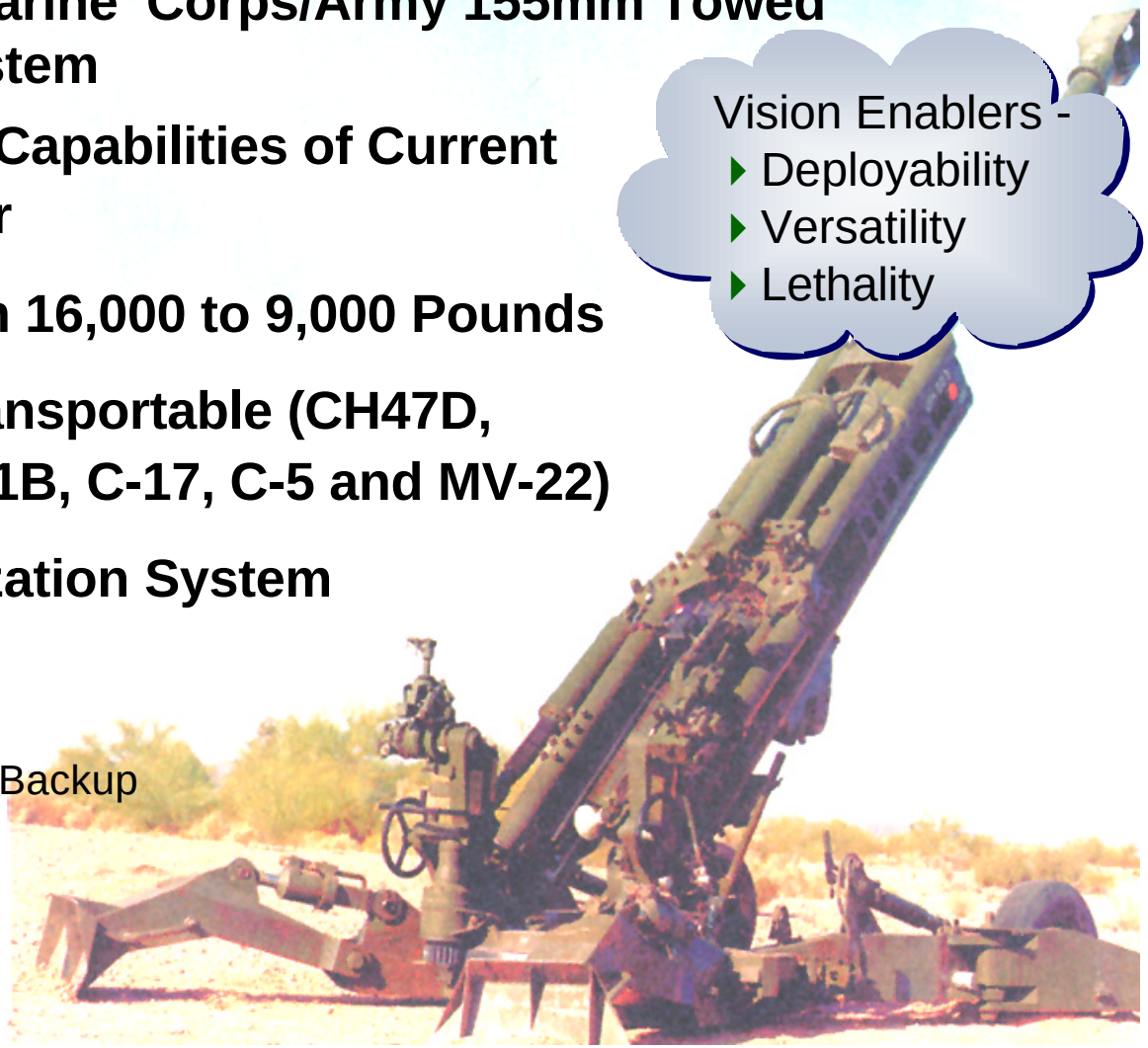
- Inertial Navigation
- Global Positioning System Backup

Block II

- Situational Awareness
- Advanced Direct Fire Sight

Vision Enablers -

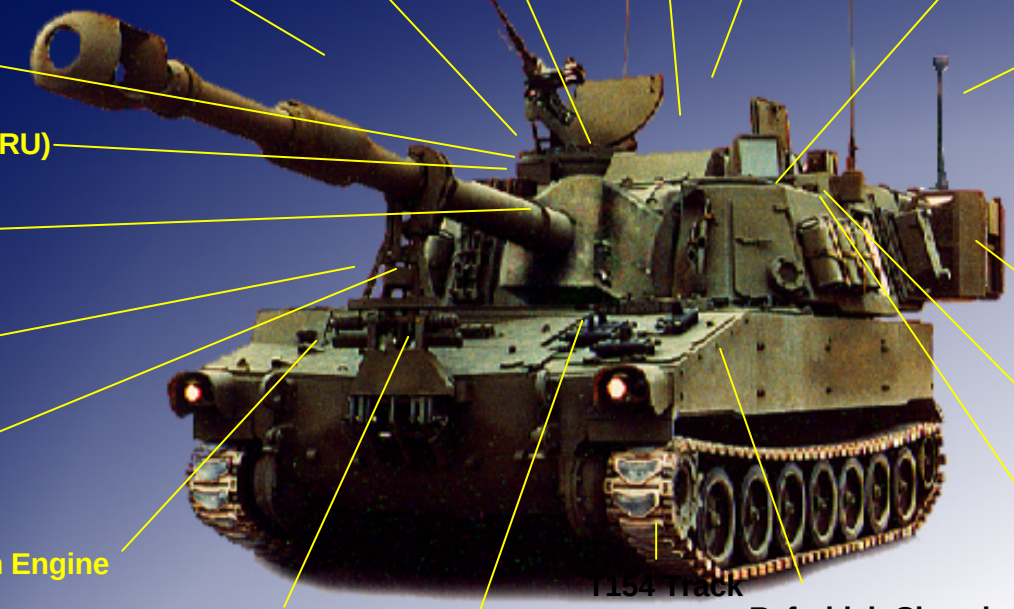
- Deployability
- Versatility
- Lethality



M109A6 Paladin

Quantity Produced: 957

(18 add'l in '02)



New Turret with Kevlar Spall Suppression Liners

Ballistic Shield

M182A1 Gun Mount

Micro Climatic Conditioning System (MCS)

M284 Cannon w/ ABE

Segregated Hydraulic Compartment

Muzzle Velocity System (MVS)

Precision Lightweight GPS Receiver (PLGR) Antenna

Dynamic Reference Unit (DRU)

Automatic Fire Control System (AFCS)V11.0A

Full Width Bustle Ammunition Stowage

Mounted Water Ration Heater (MWRH)

Secure Voice and Digital Communications

Remotely Operated Travel Lock

Digital Vehicular Intercom System

Low Heat Rejection Engine

T154 Track

Refurbish Chassis with Upgraded Suspension

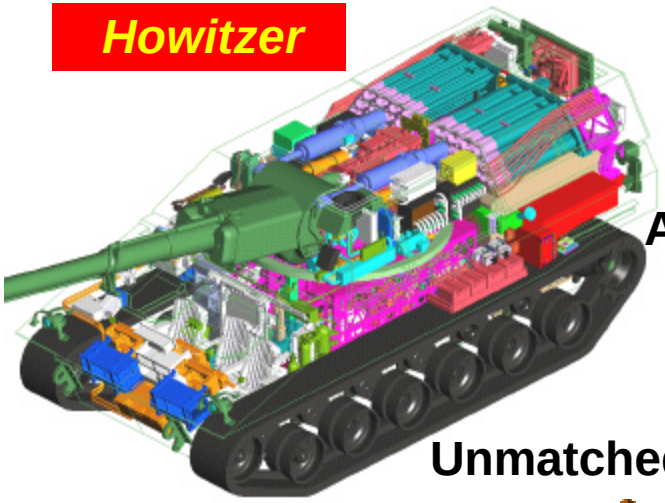
Final Drive Disconnect

Driver's Night Vision Device

Crusader: Decisive Firepower Supporting the Objective Force

Crusader System

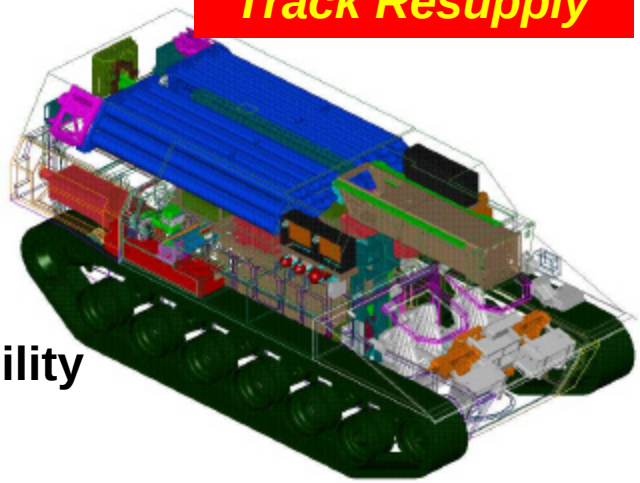
Howitzer



Unprecedented Firepower

Aircraft Like Crew Cockpit

Track Resupply



Unmatched Soldier Survivability

Wheel Resupply

Unparalleled Mobility

World's Only Automated Firing & Resupply

Better Gun … Firepower Unchanged … Log Reduced

Has Crusader Changed?

1999

18 Per Battalion

18 Per Battalion

60 Ton Howitzer

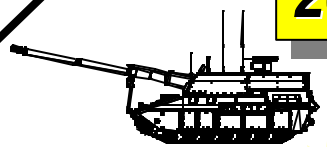
2000

Suspension System

Mobility (7.0 Tons)

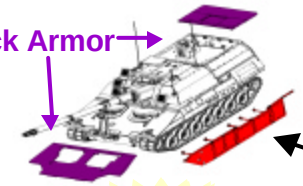
LV100-5

Abrams-Crusader Common Engine



Structure (4.8 Tons)

Top Attack Armor

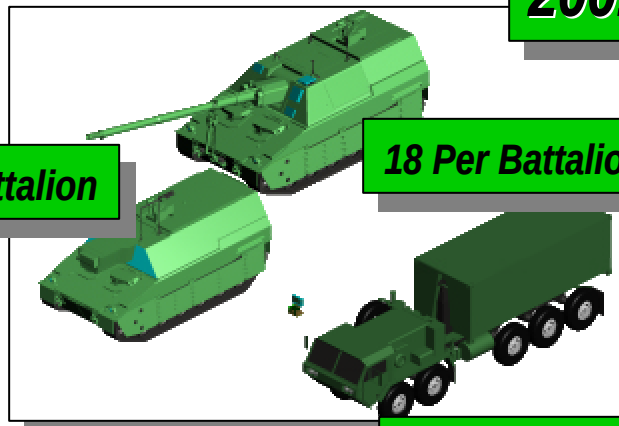


Skirts

Protection by Kits (3.9 Tons)

2001

9 Per Battalion



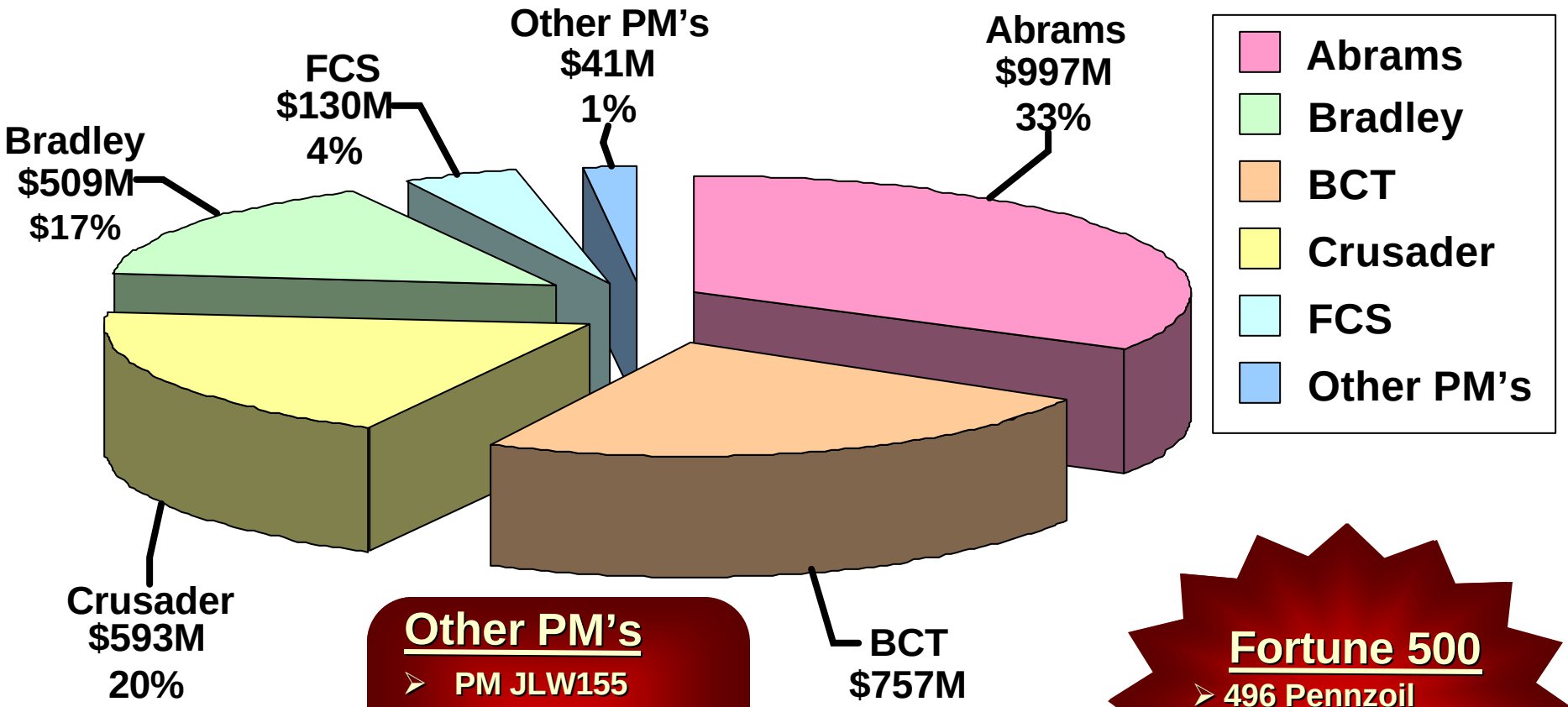
18 Per Battalion

9 Per Battalion

40 Ton Howitzer

- Reduced weight by 20 tons
- Increased strategic deployability
- Better System...Better Capabilities
- Unleashes Combat Power

FY02 Program Funding ($3.0B)



Other PM's

- PM JLW155
- PM Paladin/FAASV
- PM LAV
- PM UGV

Fortune 500

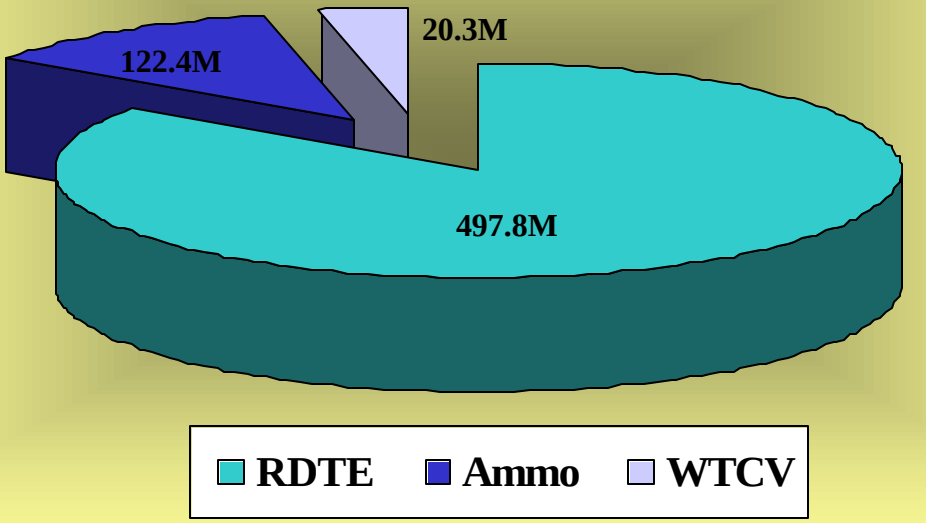
- 496 Pennzoil
- "497" PEO GCS
- 499 Knight-Ridder

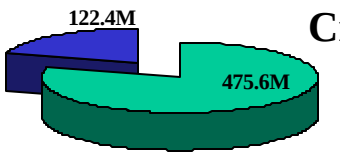
FY03 PEO-GCS Fire Support Division

$ in Millions

Total - $640.5M

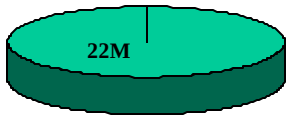
By Appropriation



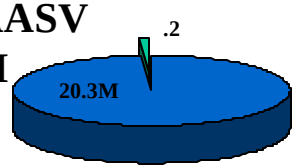


Crusader
$598M
93%

JLW
$22M
3.5%



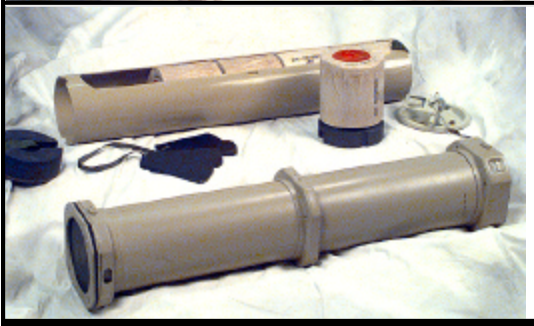
Paladin/FAASV
$20.5M
3.5%



Modular Artillery Charge System (MACS)

TEAM CRUSADER

M231 propelling charge



M232 propelling charge

Capabilities / Requirements

- Optimized for Crusader
- Identifiable / Distinguishable
- Range: 4 to 40+ km
- Rate-of-Fire: 10-12 rds/min
- Accuracy: <2mps M.V. StDev
- Compatible With All Current & Future 155mm Weapon Systems
- Replaces Current 4 Charges
- Bi-directional Igniter (Load Either End First)
- JBMOU Compliant

Status / Fielding

- M231
  - TC-STD -- 25 Oct 1999
  - Materiel Release -- 2QFY02
- M232
  - TC-STD -- 08 Aug 2001
  - Materiel Release -- 4QFY03

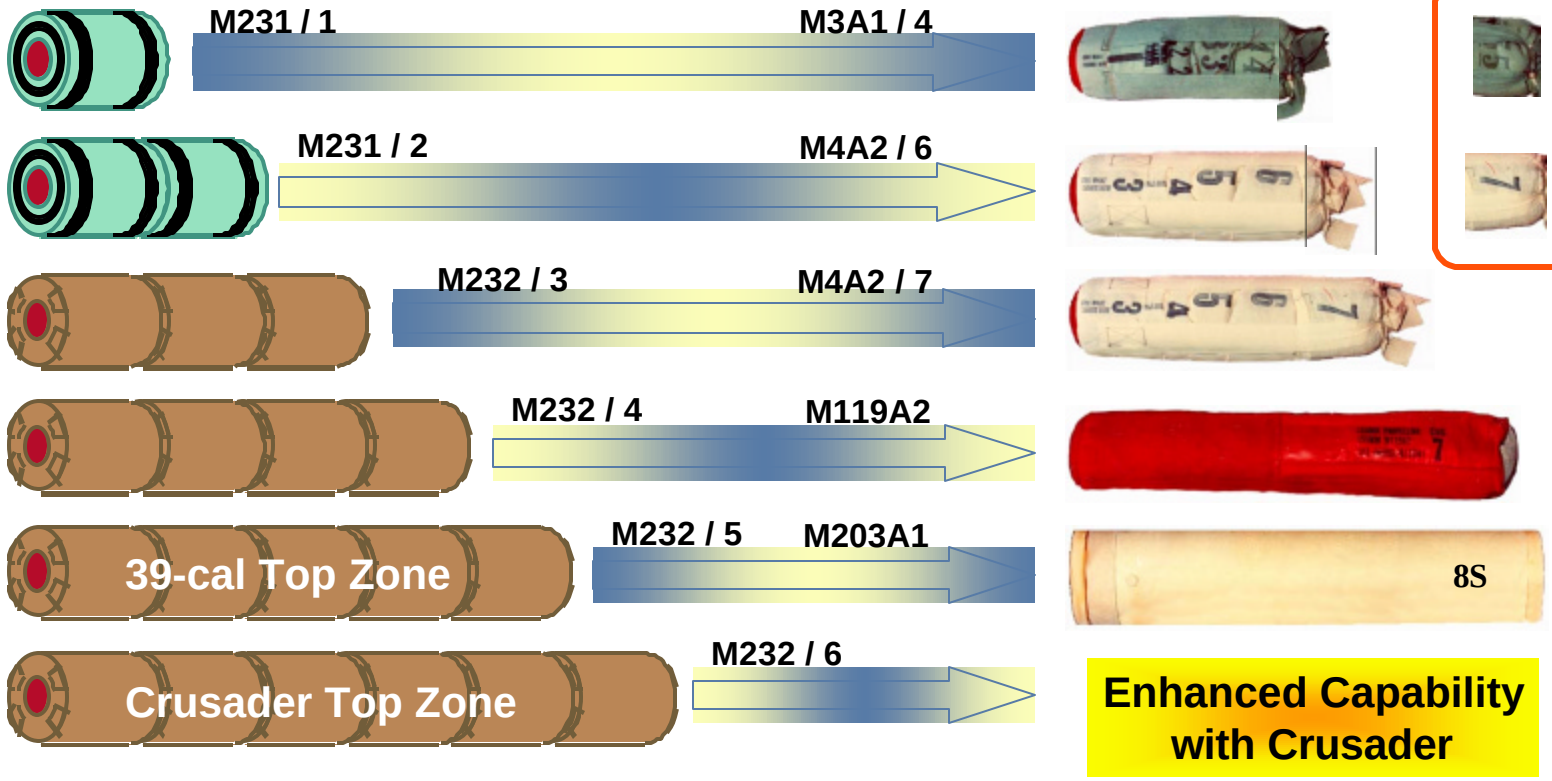
Benefits

- 17% Reduction In O&S Costs
- 40% Reduction In Cube
- 10% Reduction In Weight
- 33% Increase In Maximum Range
- 120% Increase In Rate-of-Fire
- Increased Operational Flexibility
- Efficient Use -- No “Excess”
- Compatible With Primers & Laser Ignition
- Environmental / Prevention -- Reduced Carcinogens and Eliminated Lead

MACS Item Description

Crusader Ranges

- MACS versus Current Charges **(equivalent muzzle velocity)**



* w/XM982

Enhanced Capability with Crusader

NOTE: 231/232 Charges Are NOT Mixed !!

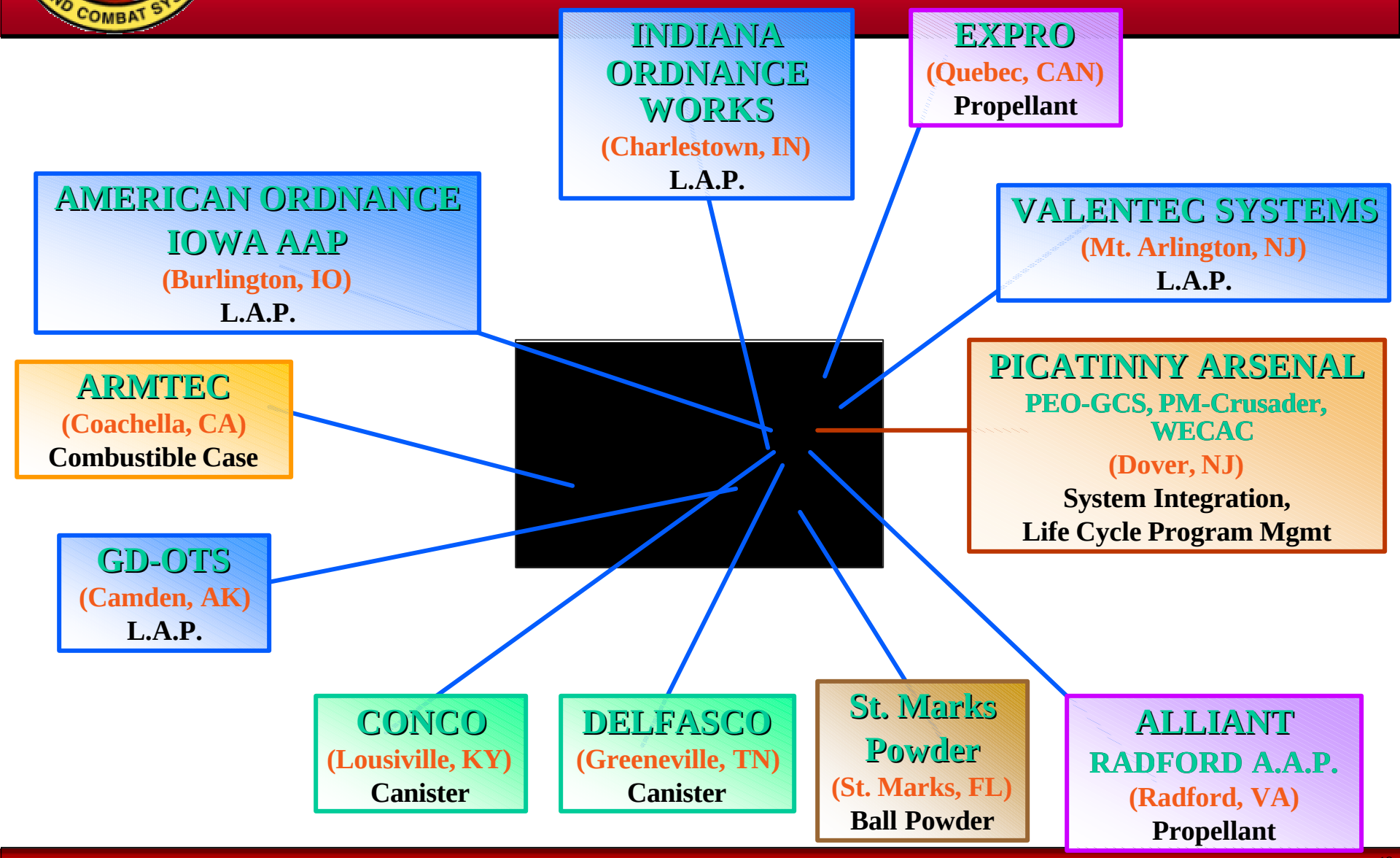
Acquisition Strategy

- Current (thru FY02)
  - Component Breakout/Detailed Item Specifications
  - FY00 = 520,000 units, FY01 = 355,000 units
  - Current Producers = Armtec, ATK, Expro, GD-OTS, CONCO, AO

- Future
  - Transition Component/Assembly Acquisitions to Multi-year contracts
  - Restricted – Competitive (when possible)-Best Value
  - Small Business for Metal Containers

Nomenclature	Qty 02	Outyrs AAO:19.5M
M231 Propelling Chg	**270K**	**yes (thru FY16)**
M232 Propelling Chg	**476K**	**yes (thru FY16)**

Current Players



Summary

- **PEO GCS Family of Programs**
  - **Aggressive Application of Innovation and Acquisition Reforms**
  - **A Resident World-class, Technical Workforce**
  - **Imaginative Exercise of the Full Line Authority of the Army Acquisition Executive**
  - **Near Term fieldings of MACS to Warfighters**

PEO GCS Is Maintaining Our Army's Supremacy in Ground Combat Systems and Is Poised for the Army's 21st Century Transformation